

I CLAIM:

1. An automatic positioning system for a table saw including a saw blade, a fence, and a guide track, the fence being moveable along the guide track to alter the distance between the fence and the saw blade, the system comprising

5 a rail structure,

a carriage assembly connected to the fence configured to move back and forth along the rail structure thereby causing the fence to move along the guide track, and

at least two linkage structures for connecting the rail structure in parallel with the guide track, each linkage structure including a first sheet member configured for  
10 attachment to the rail structure, a second sheet member configured for attachment to the guide track of the table saw, and a fastening device for rigidly sandwiching the first and second sheet members together.

15 2. The system of claim 1, each linkage structure further comprising

a third sheet member configured for attachment to the rail structure in sandwiched combination with the first and second sheet members.

20 3. The system of claim 2, wherein the second sheet member is sandwiched between the first and third sheet members.

4. The system of claim 2, each linkage structure further comprising  
a fourth sheet member configured for attachment to the guide track of the saw in  
sandwiched combination with the first, second, and third sheet members.

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5. The system of claim 4, wherein the second and fourth sheet members are  
sandwiched between the first and third sheet members.

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6. The system of claim 1, wherein the second sheet member has a hook  
shaped portion configured to fit around at least a portion of a circular guide track.

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7. The system of claim 5, wherein each of the second and fourth sheet  
members has a hook shaped portion configured to fit around at least a portion of a  
circular guide track.

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8. The system of claim 1, wherein the rail structure has at least two T-shaped  
slots for receiving flange portions on bolt members connected to the first sheet member,  
thereby fastening the first sheet member to the rail structure.

9. The system of claim 5, wherein the rail structure has at least two T-shaped slots for receiving flange portions on bolt members connected to the first and third sheet members, thereby fastening the first and third sheet members to the rail structure.

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10. The system of claim 1 wherein the first and second sheet members have one or more series of coinciding holes permitting the first and second sheet members to be bolted together in different relative orientations by pairing different combinations of holes from the sheet members.

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11. A linkage system for connecting first and second linear track structures comprising

15 a plurality of first plate members configured for attachment to a linear positioning rail,

a plurality of second plate members configured for attachment to a material processing machine including a pushing mechanism or indexing device, and

a mechanism for rigidly connecting first and second plate members.

12. The linkage system of claim 11, wherein the first plate members have substantially the same configuration, and the second plate members have varying configurations for attaching the rail to different structures.